

IN THE CLAIMS:

Please amend claims 1 and 6-7 as follows:

1. (Currently Amended) A storage apparatus comprising:

a lens moving unit for moving an objective lens in the direction of its optical axis;

a focus error detection unit for sensing a targeted position error of the objective lens;

a focus search control unit for outputting an order to move the objective lens to the vicinity of a targeted position;

a focus servo control unit for causing the objective lens to follow the targeted position; and

a trajectory generating unit disposed at the focus search control unit and for generating a position trajectory to move the objective lens such that the objective lens approaches a targeted position gradually, wherein

the position trajectory output from the trajectory generating unit is defined by a function of at least third order ~~or higher~~ with respect to time.

2-5. (Cancelled)

6. (Currently Amended) A focus control method of an apparatus comprising a lens moving unit for moving an objective lens in the direction of its optical axis, a focus error detection unit for sensing a targeted position error of the objective lens, a focus search control unit for outputting an order to move the objective lens to the vicinity of a targeted position, and a focus servo control unit for causing the objective lens to follow the targeted position, wherein

a position trajectory is generated for moving the objective lens such that the objective lens approaches the targeted position gradually, and therein the position trajectory is defined by a function of at least third order ~~or higher~~ with respect to time.

7. (Currently Amended) A focus control method of an apparatus comprising a focus actuator for moving an objective lens in the direction of its optical axis, a focus error signal detection circuit for detecting the displacement of the objective lens in the vicinity of a focal point, a focus search control unit for outputting an order to move the objective lens to the vicinity of the focal point, and a focus servo control unit for causing the objective lens to follow the position of the focal point, wherein

a position trajectory is generated for moving the objective lens such that the objective lens approaches a targeted position gradually, and wherein the position trajectory is defined by a function of at least third order ~~or higher~~ with respect to time.

8-10. (Cancelled)